

## ABSTRACT

A magnetic resonance imaging apparatus includes a unit (shim coil) that corrects uniformity of a magnetic field, a temperature detecting unit that detects a temperature of a magnet or its surroundings, and a control unit that controls the shim coil based on the detected temperature. The control unit calculates an error component for changing the uniformity of the magnetic field at the detected temperature of the magnet or its surroundings, based on a temperature characteristic of uniformity of the magnetic field calculated in advance. Further, the control unit calculates a shim current that generates a correction magnetic field for canceling the error component, and drives the shim coil based on this shim current.